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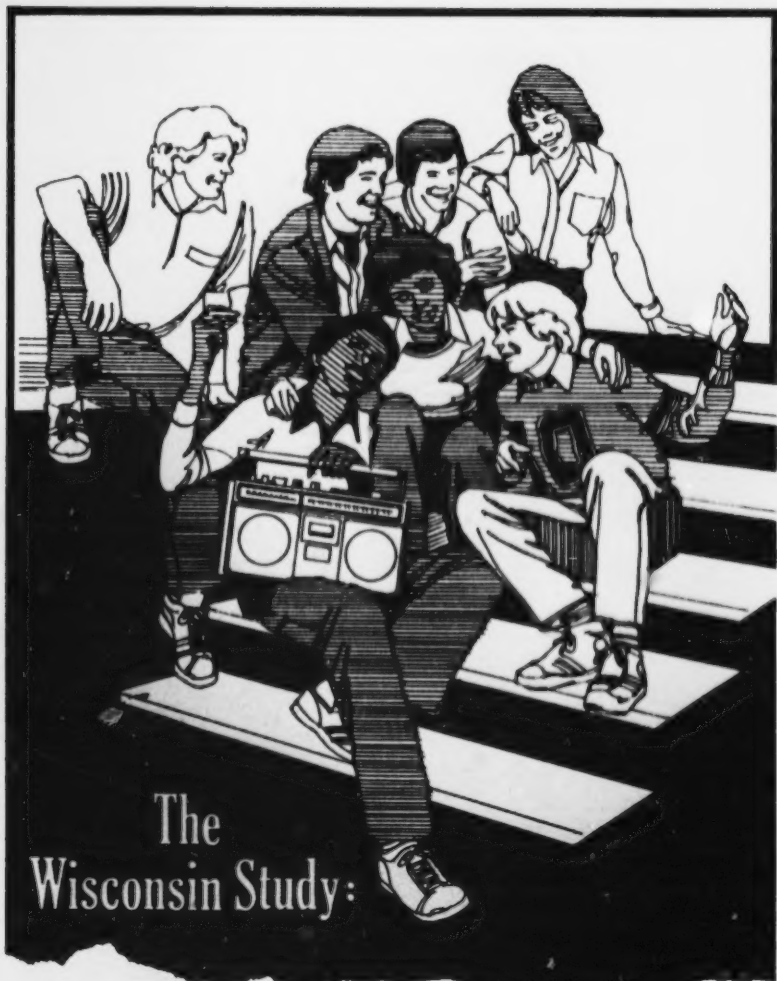
ABSTRACT

This study assessed student experience with alcohol and other drugs to establish baseline data against which on-going alcohol and drug education efforts can be measured. Subjects were 6,222 students in grades 6, 8, 10, and 12 who were enrolled in 124 public schools in 83 Wisconsin communities. The results of the study revealed that 53% of sixth graders had used alcohol, 51% of 12th graders used alcohol in the 2 weeks prior to the survey, and 37% of seniors and 28% of sophomores drank to the point of intoxication at least once in the 2 weeks prior to the survey. In the year prior to the survey, 46% of 12th graders had driven after drinking and 70% had ridden in a vehicle driven by someone who had been drinking alcohol. Alcohol use rates for girls were only slightly lower than for boys. Although they were under the legal age, 18% of 12th graders reported buying alcohol at a store and 18% reported getting alcohol in a bar. Illicit drugs were reportedly tried by 47% of seniors, 34% of sophomores, 18% of eighth graders, and 6% of sixth graders. Problem drinking or drug use was found in 9% of 6th graders, 19% of 8th graders, 33% of 10th graders, and 44% of 12th graders. These findings document the magnitude of the challenge faced by educators in meeting the alcohol and other drug use problem. (NB)

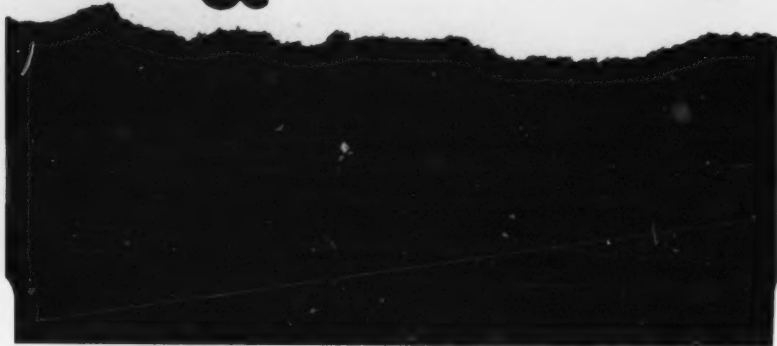
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Alcohol & Other Drug Use



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A SEARCH INSTITUTE REPORT
APRIL 1989
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The Wisconsin Study: Alcohol and Other Drug Use



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Foreword

Substance abuse in many of our communities has reached the epidemic stage. It is apparent that, as educators work to determine the extent of the problem and develop the means to address it, one of the most reliable sources of information is youth themselves. It is youth who are most adversely affected by the abuse of alcohol and other drugs. And it is youth who have first-hand knowledge of the magnitude of the problem in the community/school environment.

A survey based on student experience with alcohol and other drugs (AOD) is therefore an invaluable resource in developing programs to meet the AOD crisis. With this Search Institute report, I am initiating a periodic study of AOD issues in Wisconsin schools and communities.

Such a study is essential as we develop comprehensive drug education and intervention networks in Wisconsin schools and communities. It will enable us to achieve three major objectives: First, this initial documentation provides baseline data against which our on-going AOD efforts and programs can be measured. Secondly, a periodic AOD assessment in the state will enable us to monitor change over time. Third, we will have a means of accurately measuring Wisconsin's progress against national data, such as that compiled in the University of Michigan's annual survey of AOD use by high school seniors.

The survey presents data obtained from 6,222 students at 6th, 8th, 10th, and 12th grade levels. It was conducted in 124 public schools in 83 Wisconsin communities.

Let no one be complacent. The results of the Search Institute survey indicate that the AOD problem in Wisconsin is as serious as that at the national level. Our children have provided us with the evidence:

- * 53 percent of 6th graders have used alcohol
- * 51 percent of 12th graders used alcohol in "the last 2 weeks"
- * 37 percent of seniors and 28 percent of sophomores drank to the point of intoxication (five or more drinks in a row) one or more times in the last two weeks
- * in the last year, 46 percent of 12th graders have driven after drinking; 70 percent have ridden in a vehicle driven by someone who had been drinking alcohol
- * alcohol use rates for girls are only slightly lower than for boys

* though under legal age, 18 percent of 12th graders have bought alcohol at a store; 18 percent got it in a bar

* 47 percent of 12th graders have tried an illicit drug; 34 percent of 10th graders, 18 percent of 8th graders, and 6 percent of 6th graders have used illicit drugs

To summarize, the Search Institute survey reveals that 9 percent of our 6th graders are problem drinkers or problem drug users. The rate for problem substance abuse rises to 19 percent for 8th graders, 33 percent for 10th graders, and stands at 44 percent for 12th graders. Based on these data and specific at-risk criteria, 10 percent of our youth in 6th grade are at risk and 51 percent of 12th graders.

Over 50 percent of Wisconsin's 1989 graduating class will be approaching the threshold of adulthood with a chemical problem that puts them at risk. This survey documents the magnitude of the challenge we face in meeting the AOD problem.

Herbert J. Grover
State Superintendent

April 1989

ACKNOWLEDGEMENTS

The Wisconsin Study: Alcohol and Other Drug Use is a comprehensive report on the extent of student experience with alcohol and illicit drugs in Wisconsin. It is the result of a major collaborative effort involving the Wisconsin Department of Public Instruction (DPI), the Wisconsin Department of Health and Social Services (DHSS), Wisconsin's 12 cooperative educational service agencies (CESAs), local school districts, and the University of Wisconsin-Madison Survey Research Laboratory.

Vincent J. Ritacca, DHSS Office of Alcohol and Other Drug Abuse, and Linda Kunelius, DPI Bureau for Pupil Services, were instrumental in effecting the joint collaboration of DHSS and DPI and provided administrative direction throughout the study.

Tony Sinsky, DHSS Office of Alcohol and Other Drug Abuse, provided substantial impetus to development of the survey.

Dr. Mark Fredisdorf, Dr. Judd Harmon and Gordon Hanson, DPI, and Michael Quirke, DHSS, did basic groundwork on the study, with the assistance at DPI of Susan Fredlund and the AOD staff and personnel.

Connie Salveson, DPI, was liaison to the Search Institute staff and coordinated the on-site administration of the survey.

The Bureau for Education Information Services, DPI, provided editorial and graphic design assistance, with Margaret Powell serving as AOD editor.

Sampling procedures and the sampling frame were developed by the University of Wisconsin-Madison Survey Research Laboratory.

CESA coordinators administered the surveys in the schools in their CESAs.

The 124 schools in 83 Wisconsin communities that comprised the sample were chosen from Wisconsin's 430 public school districts on the basis of standard random sampling procedures.

The Search Institute team, supervised by Dr. Peter L. Benson, included Carolyn H. Eklin, Jean Wachs, Marilyn Erickson, and Kim Hanson. Carolyn Eklin served as liaison with the Department of Public Instruction and provided training for the in-school administration of the surveys. The contributions of Rick Gordon and Michael Trierweiler, computer programmers, are also acknowledged.

Special recognition is made of the \$2,000 grant from the Aid Association for Lutherans and the \$1,000 gift from American Family Insurance in support of the AOD study.

I. HIGHLIGHTS

In the fall of 1988, a stratified random sample of 6,222 Wisconsin public school students enrolled in the 6th, 8th, 10th, and 12th grades participated in this study of alcohol and other drug use and non-use.

Social Context

- 32 percent of 10th graders report "my parents never know when I have been drinking."
- According to students' perceptions, parents are much more tolerant of alcohol use than they are of illicit drug use.

Alcohol Use

- 53 percent of 6th graders have used alcohol. Lifetime use, once or more, rises to 94 percent in the 12th grade.
- Current 6th graders are nearly three times more likely than current 12th graders to report that their first use of alcohol occurred in grade 5 or earlier.
- 40 percent of 12th graders have used alcohol 40 or more times in "the last 12 months."
- 37 percent of seniors and 28 percent of sophomores drank to the point of intoxication (five or more drinks in a row) one or more times in "the last 2 weeks."
- In "the last 12 months," 46 percent of 12th graders have driven a

vehicle after drinking. Seventy percent have ridden in a vehicle driven by someone who had been drinking alcohol.

- 26 percent of 6th graders and 20 percent of 8th graders report never having a course at school that helped them "learn about alcohol and drugs and the way they affect people."
- 51 percent of 12th graders have used alcohol in "the last 2 weeks."
- Nearly one-third (31%) of 8th graders used alcohol in "the last 30 days."
- Though under the legal age, 18 percent of 12th graders report buying alcohol at a store, and 18 percent report getting alcohol at a bar or tavern.
- Alcohol use rates for girls are slightly lower than for boys.

Tobacco Use

- The percent who smoke one-half pack or more per day is as follows:
6th - 1 percent, 8th - 4 percent, 10th - 9 percent, 12th - 12 percent.
- Cigarette use among girls tends to be more common than among boys.
- Although about one-third of sophomores and seniors have tried smokeless tobacco, only 2 percent of sophomores and 3 percent of seniors are regular users.

Illicit Drug Use

- The percent of all 12th graders who have tried an illicit drug one or more times in their lifetime is 47. For 10th graders, the rate is 34 percent; for 8th graders, 18 percent; and for 6th graders, 6 percent.
- Use of marijuana or hashish is very uncommon among 6th graders, with 3 percent reporting one use or more, lifetime. Significant percentage increases occur thereafter, with lifetime use, once or more, reported by 12 percent of 8th graders, 28 percent of 10th, and 42 percent of 12th.
- Use of the cocaine form known as "crack" is very uncommon, with only 1 percent of 6th and 8th graders and 2 percent of 10th and 12th graders reporting lifetime use, once or more.
- Daily use of marijuana is uncommon, with 2 percent of 10th and 12th graders reporting use of 10 or more times in "the last 2 weeks."
- Girls are slightly less likely than boys to use marijuana. This is true for single usage or high frequency usage rates.
- Nine percent of 12th graders and 6 percent of 10th graders report use of cocaine once or more, lifetime. The percentages fall to 6 percent (12th) and 4 percent (10th) for use in "the last 12 months."
- Lifetime use of amphetamines, once or more, rises from 1 percent of 6th graders to 16 percent of 12th graders.

- Of seven other illicit substances investigated in this survey (LSD, PCP, heroin, other narcotics, methaqualone, barbiturates, tranquilizers), the category of other narcotics (e.g., opium, morphine, Demerol) has the highest use rates, with 11 percent of 12th graders reporting lifetime use, once or more.

Patterns of Problem Alcohol and Drug Use

- In chapter VIII, four patterns of alcohol and drug use are defined. The survey reveals that, among 6th graders, 9 percent are categorized as problem drinkers or problem drug users. The rate for problem drug and/or alcohol use rises to 19 percent for 8th graders, 33 percent for 10th graders, and 44 percent for 12th graders.

Percentage of Students At Risk

- Students are defined as chemically at risk if they meet one or more of these conditions: use alcohol frequently, use illicit drugs frequently, or use cigarettes, smokeless tobacco, or inhalants regularly (see chapter IX for precise explanations of these criteria). The percentage at risk rises from 10 percent of 6th graders to 51 percent of 12th graders.
- Across all 6th-12th grade students, 34 percent of males and 30 percent of females are at risk.

Comparisons to National Norms

- Compared to a nationally representative sample of high school seniors, Wisconsin seniors are as likely to use alcohol and to smoke cigarettes, and less likely to use illicit drugs.

Community Size Differences

- In Wisconsin, drug and alcohol behavior varies little as a function of community size (under 2500, 2500-9999, 10,000-49,999, 50,000 or more). There are very modest trends for alcohol use to be greater in smaller communities and illicit drug use to be greater in communities over 50,000.

II. INTRODUCTION

Search Institute Profiles of Student Life: Alcohol and Other Drugs, the survey used for the Wisconsin Study: Alcohol and Other Drug Use, was administered in October and November, 1988, to a representative sample of 6th, 8th, 10th, and 12th grade students enrolled in Wisconsin public schools. Six-thousand three-hundred fifty-seven (6,357) students responded to the survey. One hundred thirty-five (135) survey forms were discarded due to one or more of these reasons: the student did not answer 40 or more of the questions, responses to items were inconsistent, or self-reported drug use was too high to be believable (i.e., daily use of multiple illicit drugs). The resulting sample used in this report numbered 6,222 (see Figure 1).

The public schools participating in this study were selected by stratified random sampling procedures developed by the University of Wisconsin-Madison Survey Research Laboratory. School selection was stratified by geographical region and district enrollment size. Within selected schools, classrooms were randomly selected to yield school samples matching the number of students dictated by the Survey Research Laboratory's sampling frame.

The stratified random sample of schools numbered 131, with 124 schools cooperating in the study. This represents a 95 percent participation rate. The 124 schools were located in 83 different Wisconsin communities.

Search Institute, Minneapolis, MN, received a contract from the Department of Public Instruction to design the survey instrumentation, analyze the survey data, and prepare this report. Connie Salveson of the Wisconsin Department of Public Instruction directed the project, including

Figure 1: Wisconsin Sample Characteristics

	<u>Sample Size</u>	<u>Percent of Total Sample</u>
Total	6,222	100
<u>Grade*</u>		
6	1,510	24
8	1,484	24
10	1,516	24
12	1,701	27
<u>Gender*</u>		
M	3,113	50
F	3,062	50
<u>Community Size*</u>		
Under 2,500	2,131	34
2,500 - 9,999	637	10
10,000 - 49,999	970	16
50,000 or over	2,460	40
<u>Race/Ethnicity*</u>		
American Indian	110	2
Asian or Pacific Islander	62	1
Black or African American	380	6
Latino or Hispanic	81	1
White	5,462	89
Bi-racial or bi-cultural	64	1

* Total does not sum to 6222 due to missing data.

enlisting the cooperation of sample schools, securing survey administrators, developing mechanisms for the distribution and receipt of survey forms, providing counsel on survey content and format, and disseminating project findings.

Carolyn Eklin of the Search Institute staff provided training in September, 1988, to the CESA coordinators. These coordinators administered the surveys in school classrooms, using standardized procedures summarized in an Administration Manual. Precautions were taken to assure students of anonymity.

Data Quality

There is reason to believe that the data gathered in this study are of high quality. Checks on response patterns suggested infrequent attempts to report unrealistically high levels of drug and alcohol use. The approximately one percent of students who exhibited this kind of response pattern were eliminated from the data set.

The body of research on self-reported alcohol and drug use suggests that large sample surveys of the type reported in this study yield group profiles highly consistent with other methods of collecting chemical use data (e.g., urine testing, police reports, and treatment center records). Accordingly, it can be said that survey studies of this type provide reasonably valid estimates of drug and alcohol use. Information about confidence intervals can be found in the Technical Appendix at the end of this report.

III. SOCIAL CONTEXT: FAMILY AND SCHOOL

Important resources for the prevention of student chemical abuse include parental supervision and communication, school interest and performance, educational aspirations, and involvement in structured, extracurricular activities. Students' views of these resources are presented in this section. The role of these and other resources in preventing alcohol and drug problems is discussed in the last section of this report. A summary of major findings follows.

Parenting (Figures 2 and 3)

- About three-fourths of students in each grade (6, 8, 10, 12) report that parents monitor where they are going or with whom they will be "most" or "all of the time." Girls (83%) are more likely than boys (72%) to report this kind of parental monitoring.
- About 1 out of 4 students in each grade reports that parents have never tried to talk with him or her about drugs and alcohol. Only about 6 out of 10 students report two or more such conversations (60% of 6th graders report two or more efforts by parents to talk; 60% of 8th graders; 63% of 10th graders, and 65% of 12th graders).
- In each grade, about one-half of students say that they would feel "somewhat" or "very comfortable" in initiating conversations with parents (or guardians) if they had "an important question or concern about drugs or alcohol." Girls (60%) are more likely than boys (50%) to report this comfort level in using parents as resources.

Figure 2: Family

	Grade (%)				Gender (%)	
	6	8	10	12	M	F
<u>Parental Monitoring</u>						
How much of the time do your parents ask you where you are going or with whom you will be?						
Most or all of the time	76	76	80	77	72	83
<u>Communication</u>						
How many times has one (or both) of your parents tried to talk with you about drugs and alcohol?						
Never	25	24	21	22	23	23
Once	15	16	16	13	14	15
2-5 times	32	34	39	39	37	35
6 or more times	28	26	24	26	25	27
If you had an important question or concern about drugs or alcohol, how comfortable would you feel about bringing it up with your parent(s) or guardian?						
I'd feel somewhat or very comfortable	56	52	54	57	50	60
<u>Awareness of Drinking</u>						
How often do you think your parents know when you have been drinking?						
"I never drink"	68	45	26	18	37	40
My parents never know	7	25	32	26	23	22
My parents sometimes know	5	12	25	35	20	19
My parents know most of the time or always	20	18	17	21	20	19

Based on survey items 15, 106-108

- Tenth graders (32%) are the most likely to report that "my parents never know when I've been drinking." The rates for the other grades are as follows: 6th - 7%, 8th - 25%, and 12th - 26%.
- As shown in Figure 3, reports by students of how upset parents would be "if I came home from a party and my parents found out I'd been drinking" vary dramatically by grade. While most 6th graders (82%) say parents would be "very" or "extremely upset," only a minority of 12th graders (44%) so report. Rates for 8th graders are 74 percent and for 10th graders, 61 percent. Presumably, these findings suggest that parents are much more tolerant of alcohol use among senior high school students than 6th or 8th grade students.
- When the issue is drug use, however, students in all grades perceive parental intolerance. In each of the grades, 94 percent or more report that parents would be "very" or "extremely upset" "if I came home from a party and my parents found out I'd been using drugs (such as marijuana or cocaine)."

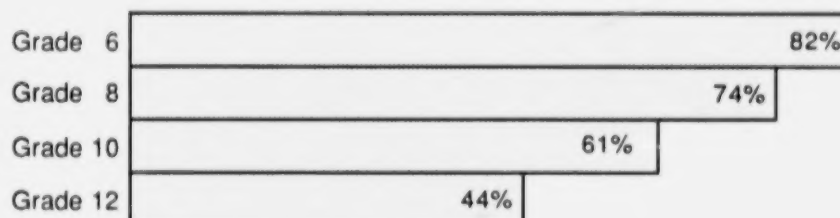
School and Time Use (Figure 4)

- Only a minority of students report liking school "quite a lot" or "very much." Eighth graders are the least likely to like school (29%). Girls (41%) are more likely to enjoy school than are boys (30%).
- The percentage of students doing 6 hours or more of homework per week increases with grade, from 23 percent of 6th graders to 39

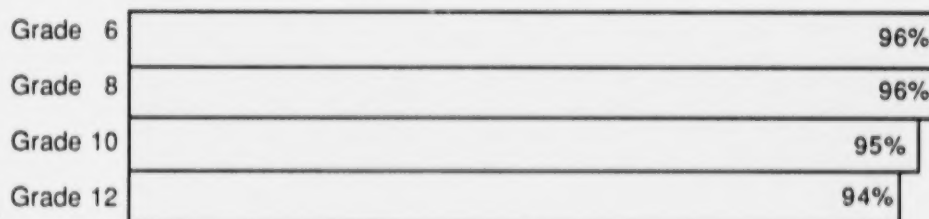
Figure 3: Parental Reaction to Drinking/Using Drugs

Percentage of students reporting parents would be very or extremely upset

If you came home from a party and your parents found out that you had been drinking, how upset do you think they would be?



If you came home from a party and your parents found out that you had been using illegal drugs (such as marijuana or cocaine), how upset do you think they would be?



Based on survey items 16,78

Figure 4: School and Use of Time

	Grade (%)				Gender (%)	
	6	8	10	12	M	F
How do you feel about going to school?						
Like school <u>quite a lot</u> or <u>very much</u>	40	29	34	39	30	41
In an average week, about how many hours do you spend doing homework?						
0 hours	3	3	3	3	5	1
1-5 hours	74	70	61	57	68	63
6 hours or more	23	27	36	39	27	36
Participation in the following,						
1 or more hours per week:						
• Music (band, choir, orchestra, lessons)	65	50	36	26	34	53
• Sports	56	62	59	48	60	52
• Clubs/organizations at school	24	31	37	46	28	42
• Clubs/organizations, non-school	63	65	60	57	63	59
TV watched on average <u>school day</u> ,						
3 or more hours	49	49	37	25	43	36
Educational aspirations after high school						
• Trade or vocational	4	6	17	25	15	11
• College	51	51	48	49	49	51
• Post graduate	25	25	20	15	18	25

Based on survey items 6, 7, 8, 96, 98

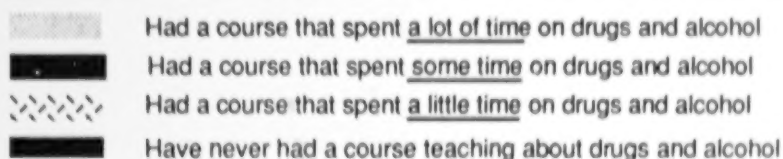
percent of 12th graders. Girls (36%) are more likely to report 6 hours or more than are boys (27%).

- The majority of students in each grade aspire to attend college or seek graduate work after college.
- The survey assessed involvement in four kinds of extracurricular activities. In two of the four (music, non-school clubs and organizations), high school students are less involved than 6th/8th graders. Sports involvement peaks in the 8th (62%) and 10th grades (59%) and declines to 48 percent in the 12th grade. Involvement in clubs and organizations at school increases with grade, from 24 percent in the 6th grade to 46 percent in the 12th grade.
- Nearly one-half of 6th and 8th graders watch 3 or more hours of television on each school day. The rate for 12th graders is only 25 percent. Boys (43%) are more likely to report 3 or more hours per day than are girls (36%).

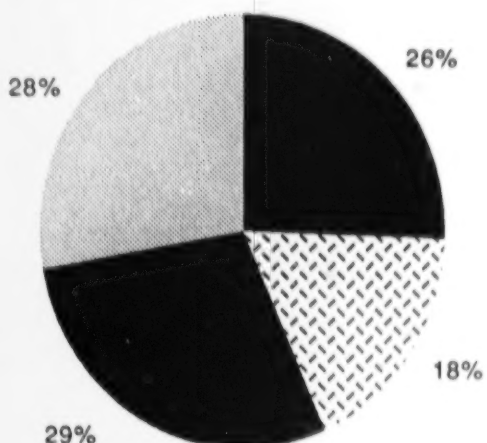
Exposure to Drug Education at School (Figure 5)

- Students were asked: "Have you ever had a course in school that helped you learn about alcohol and drugs and the way they affect people?" Figure 5 displays student responses. Sixth (26%) and 8th (20%) graders are more likely to report having no such course than 10th(13%) or 12th (10%) graders. Only about one-quarter of students in each grade claim having had a course "that spent a lot of time on drugs and alcohol."

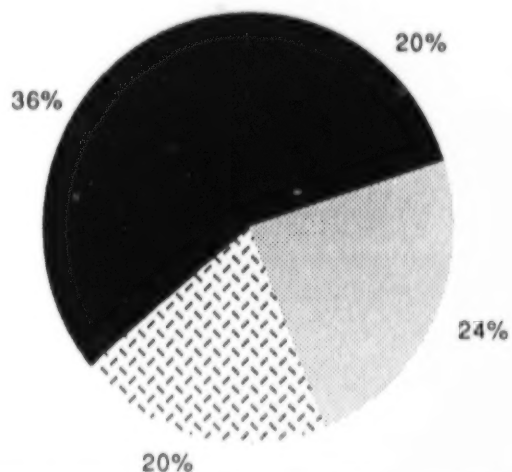
Figure 5: Exposure to Courses at School on Alcohol and Other Drugs



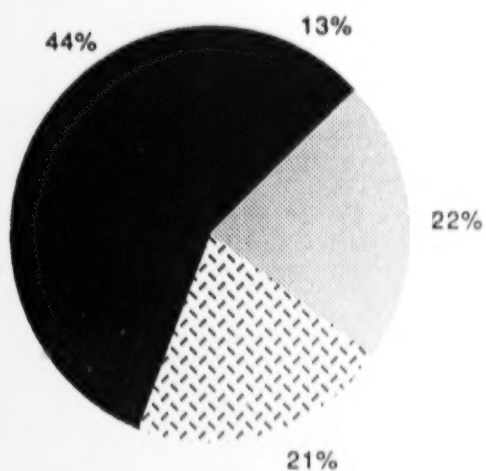
Grade 6



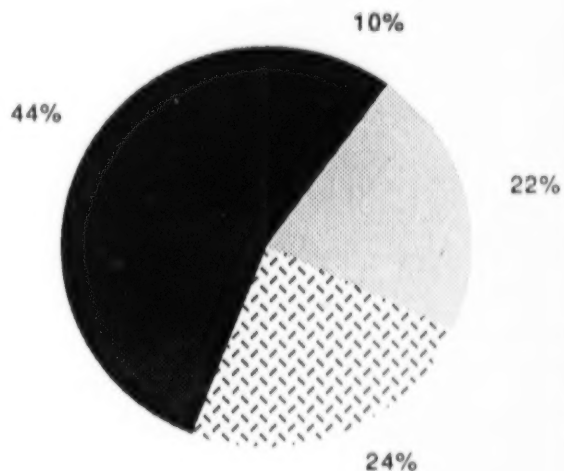
Grade 8



Grade 10



Grade 12



Based on survey item 99

IV. ALCOHOL USE

Frequency of Use (Figure 6)

- More than one-half of 6th graders have used alcohol in their lifetime. The rate increases steadily with age, from 78 percent of 8th graders and 91 percent of 10th graders to 94 percent of 12th graders. Forty percent of 12th graders have used alcohol 40 or more times.
- Most 12th graders (86%) have used alcohol in "the last 12 months," with 29 percent using 20 or more times in this time period.
- More than half of 10th (52%) and 12th (62%) graders have used alcohol in "the last 30 days."
- Fifty-one percent of 12th graders have used alcohol in "the last 2 weeks," with nearly one-quarter (23%) using 3 or more times in this time period.
- More than a third of 10th graders (39%) have had alcohol in "the last 2 weeks."
- Figure 6 also displays the percentage of students who have had five or more drinks in a row in "the last 2 weeks." This is commonly called the "drunk rate." Thirty-seven percent of seniors and 28 percent of sophomores report being drunk once or more during "the last 2 weeks."
- As in most states, alcohol use is no longer just a high school phenomenon. It increasingly involves students in the late

Figure 6: Alcohol Use

	<u>Grade (%)</u>				<u>Gender (%)</u>	
	<u>6</u>	<u>8</u>	<u>10</u>	<u>12</u>	<u>M</u>	<u>F</u>
<u>Lifetime</u>						
Once or more	53	78	91	94	81	78
40 or more times	2	8	20	40	20	16
<u>Last 12 months</u>						
Once or more	29	58	79	86	65	63
20 or more times	1	4	14	29	14	11
<u>Last 30 days</u>						
Once or more	11	31	52	62	41	39
3 or more times	3	12	27	41	23	20
<u>Last 2 weeks</u>						
Once or more	7	20	39	51	31	29
3 or more times	1	6	15	23	13	10
<u>Five or more drinks in a row in the last 2 weeks</u>						
Once or more	8	16	28	37	26	20
3 or more times	2	4	10	14	9	6

Based on survey items 9-13

elementary and junior high years. In Wisconsin, 53 percent of 6th graders and 78 percent of 8th graders have tried alcohol once or more in their lifetime; 29 percent of 6th graders and 58 percent of 8th graders have used alcohol in "the last 12 months;" nearly one-third of 8th graders (31%) have used alcohol in "the last 30 days"; and 16 percent of 8th graders report having five or more drinks in a row, once or more during "the last 2 weeks."

- On all alcohol measures reported in Figure 6, percentages for boys are consistently, but only slightly, higher than for girls.

Grade When Alcohol Was First Used (Figure 7)

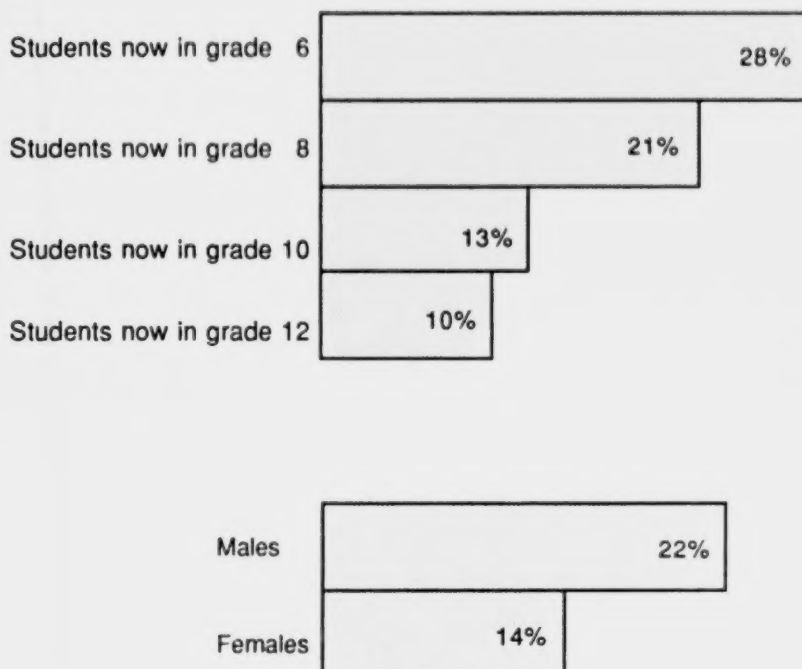
- Figure 7 shows the percent of students who say they first used alcohol in grade 5 or earlier. Current 6th graders (28%) are nearly three times more likely than 12th graders (10%) to report alcohol use in grade 5 or earlier. Inability to remember details of these experiences, for older students, may play some role in this finding; nevertheless, it is highly likely that the data indicate that experimentation with alcohol is increasingly touching the lives of 6th grade students.

Settings and Sources (Figure 8)

- When asked to indicate where they used alcohol during "the last year," students in all four grades most often indicate "at home" or "at a party." Among 12th graders, 79 percent indicate "at a party," 52 percent "at home," 39 percent "in a car," and 28 percent while

Figure 7: First Use of Alcohol

Percentage of students reporting that first use of alcohol occurred in grade 5 or earlier



Based on survey item 19: When was the first time (if ever) you drank more than just a few sips of alcohol (beer, wine, or liquor)?

Figure 8: Alcohol Use, Settings and Sources

	Grade (%)				Gender (%)	
	<u>6</u>	<u>8</u>	<u>10</u>	<u>12</u>	<u>M</u>	<u>F</u>
During the last year, how often (if ever) did you use alcohol in each of the following situations? (percentage reporting one or more occasions)						
• Alone	5	17	26	28	21	18
• Party	20	46	67	79	55	53
• Home	26	40	48	52	42	41
• Car	2	7	24	39	18	19
• School (before or during)	1	4	8	12	7	6
• School (after)	1	4	14	20	11	9
Where do you get the alcohol you drink?						
• From home, parents' alcohol	24	34	33	27	28	30
• From friends, own age	3	23	45	56	32	34
• From store, buy it	0	1	5	18	9	5
• From bar, tavern	2	3	7	18	8	8
• From someone of legal age, ask to get it	3	15	35	48	24	27
• "I never drink"	71	47	27	19	39	42

Based on survey items 14, 17

"alone." Twenty percent of 6th graders report alcohol use during 'the last year' "at a party," and 26 percent "at home."

- Twelve percent of 12th graders report use of alcohol in the last year before or during the school day. Twenty percent report use at school after the school day is over or at school events.
- Among 6th and 8th graders, alcohol is most often obtained "at home from the alcohol my parents have." Among 12th graders, the most common source is "from friends my own age," followed by "I ask someone of legal age to buy it for me."
- Eighteen percent of 12th graders say they buy alcohol at a store, and 18 percent say they get it at a bar or tavern.

Driving/Riding Patterns (Figure 9)

- Forty-six percent of 12th graders report driving after drinking, one or more times, during "the last 12 months." Seventy percent say they have ridden in a vehicle driven by someone who had been drinking.
- 35 percent of 6th graders have ridden in a vehicle with a drinking driver, once or more in "the last 12 months."

Figure 9: Alcohol and Driving/Riding Patterns

	<u>Grade (%)</u>				<u>Gender (%)</u>	
	<u>6</u>	<u>8</u>	<u>10</u>	<u>12</u>	<u>M</u>	<u>F</u>
Within the last 12 months, how many times (if any) have you driven a car, truck, motorcycle, or ATV (all-terrain vehicle) after drinking alcohol?						
Never	94	89	83	54	75	83
1-5 times	4	7	13	35	17	14
6 times or more	2	4	4	11	8	3
<u>Once or more</u>	6	11	17	46	25	17

Within the last 12 months, how many times (if any) have you ridden in a vehicle driven by someone who had been drinking alcohol?						
Never	65	53	38	30	47	44
1-5 times	27	34	43	47	36	41
6 times or more	8	13	19	23	17	15
<u>Once or more</u>	35	47	62	70	53	56

Based on survey items 93, 94

V. CIGARETTE AND SMOKELESS TOBACCO USE

Cigarette Use (Figures 10, 12)

- A majority of 10th (60%) and 12th (70%) graders have tried cigarettes. Between the 6th (24%) and 8th (49%) grades, the rate for those who have tried cigarettes doubles.
- Fifty percent of 12th graders and 42 percent of 10th graders have used cigarettes in "the last 12 months."
- Only a small percentage of students smoke one-half pack or more per day: 1 percent in the 6th grade, 4 percent in 8th grade, 9 percent in 10th grade, and 12 percent in 12th grade (Figure 12).
- On 3 of the 4 measures, cigarette use is more common among girls than among boys.

Smokeless Tobacco (Figure 10)

- Although about one-third of 10th and 12th graders have tried smokeless tobacco, only 2 percent of 10th graders and 3 percent of 12th graders claim that they are regular users.

First Use of Tobacco (Figure 11)

- Reported use of cigarettes in grade 5 or earlier is highest for current 6th graders (20%) and 8th graders (19%). For 12th graders, 13 percent recall first use occurring in grade 5 or earlier.
- The percent trying smokeless tobacco in grade 5 or earlier does not vary significantly by grade (grade 6 - 5%, grade 8 - 8%, grade 10 - 6%, grade 12 - 6%).

Figure 10: Tobacco Use

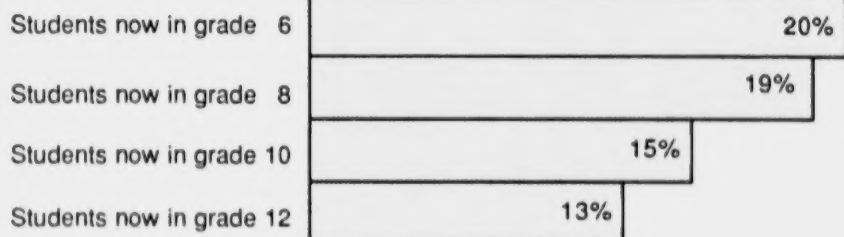
	Grade (%)				Gender(%)	
	<u>6</u>	<u>8</u>	<u>10</u>	<u>12</u>	<u>M</u>	<u>F</u>
<u>Cigarette Use</u>						
Lifetime, once or more	24	49	60	70	52	51
Last 12 months, once or more	11	33	42	50	34	36
Last 30 days, once or more	5	23	31	36	23	26
Last 2 weeks, once or more	4	19	26	31	19	22
<u>Smokeless Tobacco</u>						
Lifetime, once or more	7	18	30	36	38	8
Last 12 months, once or more	3	10	16	18	21	3
Last 30 days, once or more	1	5	8	8	11	1
Frequency of use						
Never	91	80	69	64	61	91
Once or twice	7	12	17	19	20	8
Occasionally, not regularly	1	5	9	10	12	1
Regularly in the past	0	2	3	4	5	0
Regularly now	0	1	2	3	3	0

Based on survey items 20-23, 26-29

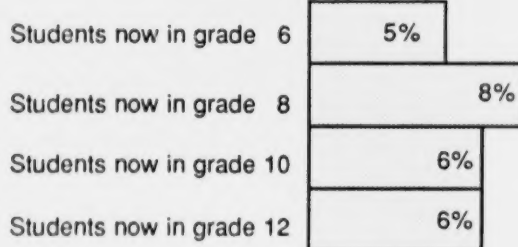
Figure 11: First Use of Tobacco

Percentage of students reporting that:

First use of
cigarettes
occurred in grade
5 or earlier



First use of
smokeless tobacco
occurred in grade 5
or earlier



Based on the following survey items:

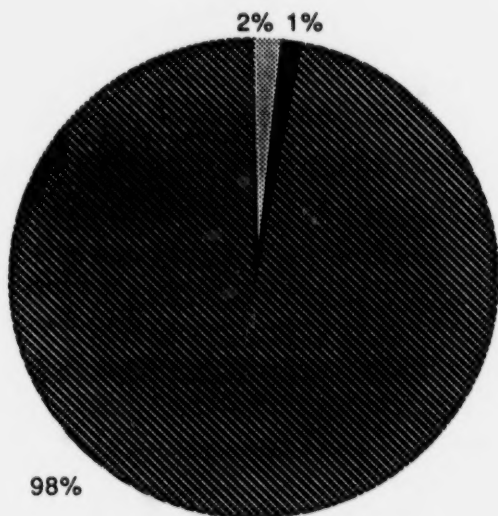
75. When (if ever) did you first try cigarettes?

76. When (if ever) did you first try smokeless tobacco?

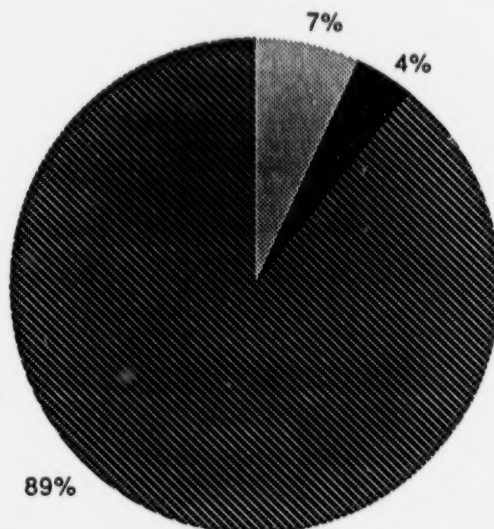
Figure 12: Cigarette Use Per Day
During the "last 30 days"

-  None or less than 1 cigarette per day
-  1 - 5 cigarettes per day
-  1/2 pack or more per day

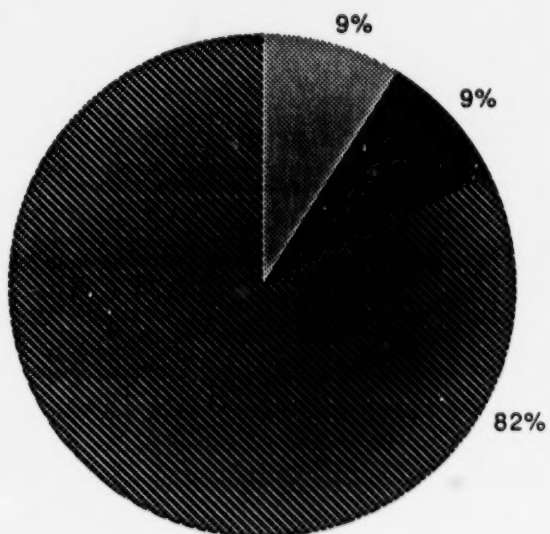
Grade 6



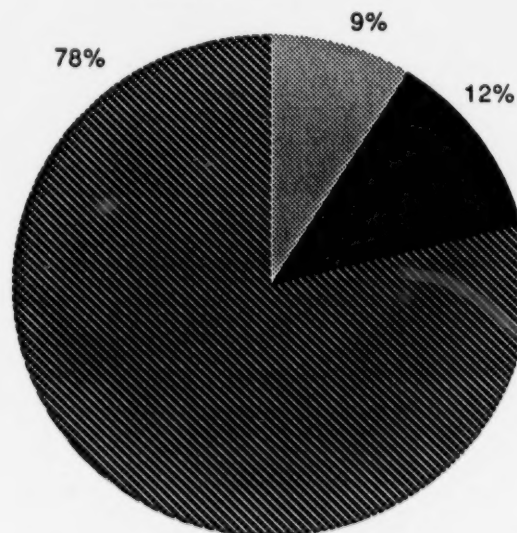
Grade 8



Grade 10



Grade 12



Based on survey item 25

VI. MARIJUANA, COCAINE/CRACK, AND AMPHETAMINE USE

Marijuana, Hashish (Figures 13, 14)

- Use of marijuana or hashish is very uncommon among 6th graders, with 3 percent reporting use once or more, lifetime. Significant percentage increases occur thereafter, with lifetime use, once or more, reported by 12 percent of 8th graders, 28 percent of 10th, and 42 percent of 12th graders.
- Use of marijuana in "the last 12 months" is reported by nearly one-third of 12th graders (31%), 21 percent of 10th graders, and 8 percent of 8th graders.
- Use of marijuana in "the last 30 days" is reported by 16 percent of 12th graders and 12 percent of 10th graders.
- In "the last 2 weeks," about one-tenth of 10th graders (9%) and 12th graders (11%) report marijuana use.
- Daily use of marijuana is uncommon, with 2 percent of 10th and 12th graders reporting use of 10 or more times in "the last 2 weeks."
- Girls are only slightly less likely than boys to use marijuana. This is true for single usage or high frequency usage rates.
- In each grade, a majority of students report that no one has tried to sell them or give them marijuana or hashish" in "the last year" (Figure 14).

Figure 13: Marijuana Use

	<u>Grade(%)</u>				<u>Gender(%)</u>	
	<u>6</u>	<u>8</u>	<u>10</u>	<u>12</u>	<u>M</u>	<u>F</u>
<u>Lifetime</u>						
Once or more	3	12	28	42	24	21
10 or more times	0	3	12	20	10	8
<u>Last 12 months</u>						
Once or more	1	8	21	31	17	15
10 or more times	0	2	7	11	6	4
<u>Last 30 days</u>						
Once or more	0	5	12	16	9	8
3 or more times	0	2	7	9	3	2
<u>Last 2 weeks</u>						
Once or more	0	3	9	11	7	5
3 or more times	0	2	5	6	4	2

Based on survey items 30-33:

How many times, if any, have you used marijuana (grass, pot) or hashish (hash, hash oil.....)?

Figure 14: Availability of Marijuana

	Grade (%)				Gender (%)	
	<u>6</u>	<u>8</u>	<u>10</u>	<u>12</u>	<u>M</u>	<u>F</u>
In the last year, how many times has anyone tried to give or sell you marijuana or hashish?						
None	92	82	65	56	70	76
1-2 times	5	10	14	18	13	11
3-5 times	1	3	6	9	5	5
6-10 times	1	2	4	6	4	3
11-20 times	0	1	3	4	2	2
More than 20 times	0	2	8	9	6	4

Based on survey item 79

Cocaine, Crack (Figure 15)

- Students were asked about both cocaine use generally and crack use specifically. Nine percent of 12th graders and 6 percent of 10th graders report use of cocaine once or more, lifetime. The percentages fall to 6 percent (12th) and 4 percent (10th) for use in "the last 12 months."
- Use of the cocaine form known as "crack" is very uncommon, with only 1 percent of 6th and 8th graders and 2 percent of 10th and 12th graders reporting lifetime use, once or more.
- There are no significant differences between boys and girls in reported cocaine or crack use.

Amphetamine Use (Figure 16)

The section on amphetamines began with this preamble: "The next questions are about amphetamines, which doctors can prescribe to help people lose weight or to give people more energy. Drugstores are not supposed to sell them without a prescription from a doctor. Amphetamines are sometimes called uppers, speed, bennies, dexies, pep pills, diet pills. They include the following drugs: Benzedrine, Dexedrine, Methedrine, Ritalin, Preludin, Dexanyl, Methamphetamine. DO NOT INCLUDE ANY NON-PRESCRIPTION OR OVER-THE-COUNTER PILLS INCLUDED IN YOUR ANSWER TO QUESTION 66. How many times, if any, have you taken amphetamines without a doctor telling you to take them?"

- Lifetime use of amphetamines, once or more, rises from 1 percent of 6th graders to 16 percent of 12th graders.
- No more than 4 percent in any one of the four grades report use of amphetamines in "the last 30 days."
- Amphetamine use is slightly higher among girls than among boys.

Figure 15: Cocaine and Crack Use

	Grade (%)				Gender (%)	
	6	8	10	12	M	F
<u>Lifetime</u>, once or more						
Cocaine	1	3	6	9	5	4
Crack	1	1	2	2	2	1
<u>Last 12 months</u>, once or more						
Cocaine	0	2	4	6	4	3
Crack	0	1	1	1	1	1
<u>Last 30 days</u>, once or more						
Cocaine	0	1	2	3	2	1
Crack	0	1	1	1	1	0
<u>Last 2 weeks</u>, once or more						
Cocaine	0	1	1	2	1	1
Crack	0	1	0	1	1	0

Based on the following survey items:

40. - 43. How many times, if any, have you used cocaine. . . ?

44. - 47. How many times, if any, have you used the form of cocaine known as crack. . . ?

Figure 16: Amphetamine Use

	Grade (%)				Gender (%)	
	6	8	10	12	M	F
<u>Lifetime</u>						
Once or more	1	6	12	16	8	10
<u>Last 12 months</u>						
Once or more	1	4	8	10	5	7
<u>Last 30 days</u>						
Once or more	0	2	3	4	2	3

Based on survey items 67-69:

Amphetamines are sometimes called uppers, speed, bennies, dexies, pep pills, diet pills. They include the following drugs: Benzedrine, Dexedrine, Methedrine, Ritalin, Preludin, Dexamyl, Methamphetamine. DO NOT INCLUDE ANY NON-PRESCRIPTION OR OVER-THE-COUNTER PILLS INCLUDED IN YOUR ANSWER TO QUESTION 66.

How many times, if any, have you taken amphetamines without a doctor telling you to take them . . . ?

VII. OTHER DRUG USE

In addition to marijuana, cocaine, and amphetamines, the survey investigated use of seven other illicit substances: LSD ("acid"), PCP or Angel Dust, heroin, other narcotics (methadone, opium, morphine, codeine, or Demerol), methaqualone (quaaludes, 'ludes, soapers), barbiturates (downers, goofballs, yellows, reds, blues, rainbows), and tranquilizers (Librium, Valium, Miltown). Generally, students were instructed to report use if taken "on your own--without a doctor telling you to take them." Findings are displayed in Figures 17 (lifetime use), 18 (past year use), and 19 (past month use).

- Among 12th graders, the highest reported lifetime use, once or more, is for "other narcotics" (11%), followed by tranquilizers (8%), LSD (3%), and barbiturates (7%). Barbiturates and other narcotics are the most commonly used of the seven substances by 10th graders, with both at 9 percent for lifetime use, once or more (Figure 17).
- Girls show slightly higher lifetime use of tranquilizers; otherwise, there are no significant gender differences in the use of the seven drugs.
- None of the seven substances has been used in "the last 12 months" by more than 7 percent of students in any of the surveyed grades (Figure 18).
- None of the seven substances has been used in "the last 30 days" by more than 2 percent of students in any of the surveyed grades (Figure 19).

Figure 17: Other Illicit Drug Use, Lifetime

	<u>Grade (%)</u>				<u>Gender (%)</u>	
	<u>6</u>	<u>8</u>	<u>10</u>	<u>12</u>	<u>M</u>	<u>F</u>
<u>Lifetime, once or more</u>						
LSD ("acid")	1	2	6	8	5	4
PCP (or Angel Dust)	1	2	3	3	2	2
Heroin	0	2	2	2	2	1
Other narcotics (methadone, opium, morphine, codeine, Demerol—without a doctor telling you to take them)	1	5	9	11	6	7
Methaqualone (quaaludes, 'ludes, soapers)	1	2	4	5	3	3
Barbiturates (downers, goofballs, yellows, reds, blues, rainbows—without a doctor telling you to take them)	2	5	9	7	6	6
Tranquilizers (Librium, Valium, Miltown)	1	4	6	8	4	6

Based on survey items 34, 37, 51, 54, 57, 60, 63

Figure 18: Other Illicit Drug Use, Annual

	<u>Grade (%)</u>				<u>Gender (%)</u>	
	<u>6</u>	<u>8</u>	<u>10</u>	<u>12</u>	<u>M</u>	<u>F</u>
<u>Last 12 months, once or more</u>						
LSD ("acid")	0	2	4	5	4	2
PCP (or Angel Dust)	0	1	2	1	1	1
Heroin	0	1	1	1	1	0
Other narcotics (methadone, opium, morphine, codeine, Demerol—without a doctor telling you to take them)	0	3	6	7	4	4
Methaqualone (quaaludes, 'ludes, soapers)	0	1	3	3	2	1
Barbiturates (downers, goofballs, yellows, reds, blues, rainbows—without a doctor telling you to take them)	1	3	5	4	3	3
Tranquilizers (Librium, Valium, Miltown)	0	2	4	4	3	3

Based on survey items 35, 38, 52, 55, 58, 61, 64

Figure 19: Other Illicit Drug Use, Past Month

	<u>Grade (%)</u>				<u>Gender (%)</u>	
	<u>6</u>	<u>8</u>	<u>10</u>	<u>12</u>	<u>M</u>	<u>F</u>
<u>Last 30 days, once or more</u>						
LSD ("acid")	0	1	2	2	2	1
PCP (or Angel Dust)	0	1	1	0	1	0
Heroin	0	0	0	0	0	0
Other narcotics (methadone, opium, morphine, codeine, Demerol—without a doctor telling you to take them)	0	2	2	2	2	2
Methaqualone (quaaludes, 'ludes, soapers)	0	1	1	1	1	1
Barbiturates (downers, goofballs, yellows, reds, blues, rainbows—without a doctor telling you to take them)	1	2	2	1	2	1
Tranquilizers (Librium, Valium, Miltown)	0	1	1	1	1	1

Based on survey items 36, 39, 53, 56, 59, 62, 65

- Combining these seven drugs with use rates for marijuana, cocaine, and amphetamines gives the following lifetime use rates, once or more, for 12th graders:

Marijuana	42%
Amphetamines	16%
Other narcotics	11%
Cocaine	9%
LSD	8%
Tranquilizers	8%
Barbiturates	7%
Methaqualone	5%
PCP	3%
Heroin	2%

Illicit Drug Use Index (Figure 20)

An index was constructed to measure the percent of students who have tried one or more illicit drugs without a doctor's prescription (marijuana, cocaine, amphetamines, LSD, PCP, heroin, other narcotics, methaqualone, barbiturates, or tranquilizers). Figure 20 displays lifetime, 12 month, and 30 day rates for use of one or more of these substances.

- 47 percent of 12th graders report one or more uses of an illicit drug during their lifetime. The rate for 6th graders is 6 percent; for 8th, 18 percent; and for 10th, 34 percent.
- 35 percent of 12th graders report one or more uses of an illicit substance during "the last 12 months." The rate for 6th graders is 3 percent; for 8th, 12 percent; and for 10th, 26 percent.
- 19 percent of 12th graders report one or more uses of an illicit drug during "the last 30 days."
- Increases in illicit drug use rates occur more between the 8th and 10th grades than between the 10th and 12th grades.

Figure 20: Illicit Drug Use Index*

	Grade (%)				Gender(%)	
	6	8	10	12	M	F
<u>Lifetime</u>						
Once or more	6	18	34	47	28	26
<u>Last 12 months</u>						
Once or more	3	12	26	35	20	19
<u>Last 30 days</u>						
Once or more	2	7	14	19	11	11

* Refers to percentage of students who have used, once or more, one of these drugs: marijuana, LSD, PCP, cocaine, crack, heroin, other narcotics, quaaludes, barbiturates, tranquilizers, or amphetamines.

- There are no gender differences in the index of illicit drug use.

Inhalant Use (Figure 21)

- Use of inhalants (sniffing glue, breathing contents of aerosol spray cans in order to get high) does not fit the pattern seen with the 10 illicit drugs previously discussed. Unlike illicit drugs, the reported use of inhalants does not increase with grade. In "the last 12 months," inhalants have been tried by 9 percent of 8th graders, 7 percent of 10th graders, and 5 percent of 12th graders. A similar pattern occurs for use in "the last 30 days."

Use of Over-the-Counter Diet and Stay-Awake Pills (Figure 22)

Survey instructions read as follows: "Some types of diet pills (also called appetite suppressants) can be sold legally without a doctor's prescription by drugstores, through the mail, etc. These include Dexatrim, Dietac, Prolamine, and others. Some stay-awake pills can be sold legally without a doctor's prescription by drugstores, through the mail, etc. These include No-Doz, Vivarin, Wake, and others. Have you ever taken any of these legal, over-the-counter diet pills or stay-awake pills?"

- Most students in each of the four grades report "never" using diet or stay-awake pills. Only 1 percent of 8th graders, 2 percent of 10th graders, and 1 percent of 12th graders claim to now use these pills on a regular basis.

Figure 21: Inhalant Use
(Sniffing glue, breathing contents of aerosol spray cans in order to get high)

		<u>Grade (%)</u>				<u>Gender (%)</u>	
		<u>6</u>	<u>8</u>	<u>10</u>	<u>12</u>	<u>M</u>	<u>F</u>
<u>Lifetime</u>							
	Once or more	7	16	18	15	16	12
<u>Last 12 months</u>							
	Once or more	3	9	7	5	6	5
<u>Last 30 days</u>							
	Once or more	2	5	3	2	3	3

Based on survey items 48-50

Figure 22: Use of Over-the-Counter Diet and Stay-Awake Pills

	Grade (%)				Gender (%)	
	<u>6</u>	<u>8</u>	<u>10</u>	<u>12</u>	<u>M</u>	<u>F</u>
Use of legally sold diet and stay-awake pills						
Never	95	80	64	50	76	67
Once or twice	4	12	18	24	14	16
Occasionally, not regular	1	6	13	19	8	12
Regularly in past	0	1	3	5	1	4
Regularly now	0	1	2	1	1	1

Based on survey item 66:

Some types of diet pills (also called appetite suppressants) can be sold legally without a doctor's prescription by drugstores, through the mail, etc. These include Dexatrim, Dietac, Prolamine, and others. Some stay-awake pills can be sold legally without a doctor's prescription by drugstores, through the mail, etc. These include No-Doz, Vivarin, Wake, and others.

Have you ever taken any of these legal, over-the-counter diet pills or stay-awake pills?

VIII. PATTERNS OF PROBLEM ALCOHOL AND OTHER DRUG USE

Students were categorized by their alcohol and drug use patterns into one of four categories: problem drinker, problem drug user, problem drinker and problem drug user, and neither problem drinker nor problem drug user. The creation of the criteria for these categories requires making judgments about what constitutes problem use. While there is no national consensus on what divides responsible use from problem use, these four categories represent one reasonable way to summarize use patterns. The four categories are defined as follows:

1. Problem drinker: Reported use of alcohol 6 or more times in "the last 30 days," and/or reported consumption of five or more drinks in a row during "the last 2 weeks" once or more, and no use of an illicit drug 6 or more times in "the last 12 months."
2. Problem drug user: Reported use of an illicit drug (e.g., marijuana, cocaine, amphetamines, heroin) 6 or more times in the last year, and use of alcohol 5 times or less in "the last 30 days," and no report of consuming 5 or more drinks in a row during "the last two weeks."
3. Problem drinker and problem drug user: Reported use of alcohol 6 or more times in "the last 30 days," and/or consumption of 5 or more drinks in a row, once or more, in "the last 2 weeks," combined with the use of an illicit drug 6 or more times in "the last 12 months."

4. Neither problem drinker nor problem drug user. A student is placed in this category if he or she does not fall into categories 1, 2, or 3.

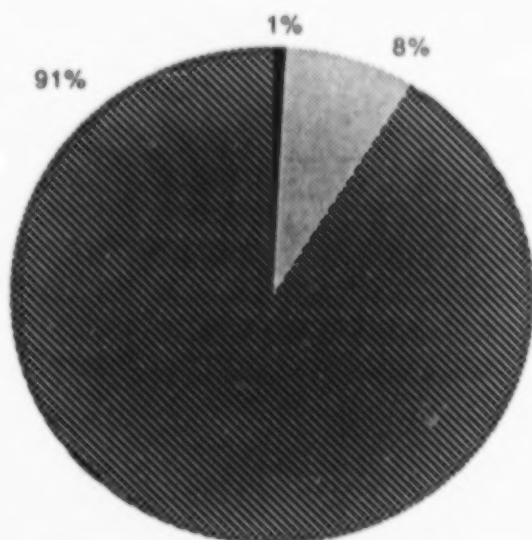
Note that each student is placed in one and only one category. Figure 23 shows the distribution of the four categories for each grade.

- In grade 6, 91 percent of students fall into the "neither a problem drinker nor problem drug user" category, 8 percent are classified as problem drinkers, and 1 percent are classified as problem drug users.
- In the 8th grade, 19 percent fall into one of the three problem categories; in 10th grade the rate rises to 33 percent.
- In the 12th grade, 56 percent fall into the "neither a problem drinker nor problem drug user" category. Twenty-six percent are problem drinkers, 4 percent are problem drug users, and 14 percent are both problem drinkers and problem drug users. Hence, in the 12th grade, 44 percent, or more than 4 out of 10, fall into one of the problem use categories.

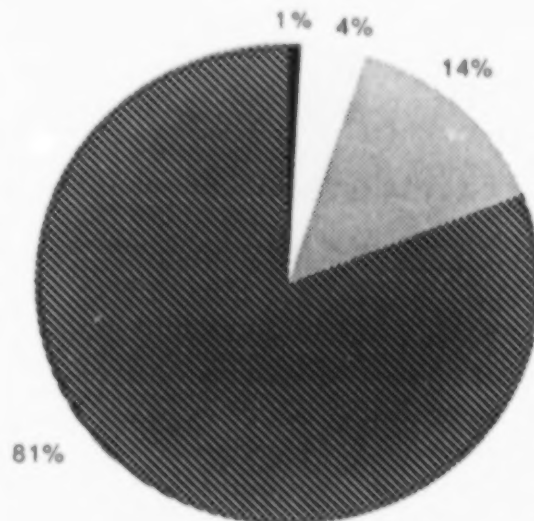
Figure 23: Patterns of Problem Alcohol and Other Drug Use

-  Problem drinker
-  Problem drug-user
-  Problem drinker and problem drug-user
-  Neither problem drinker nor problem drug user

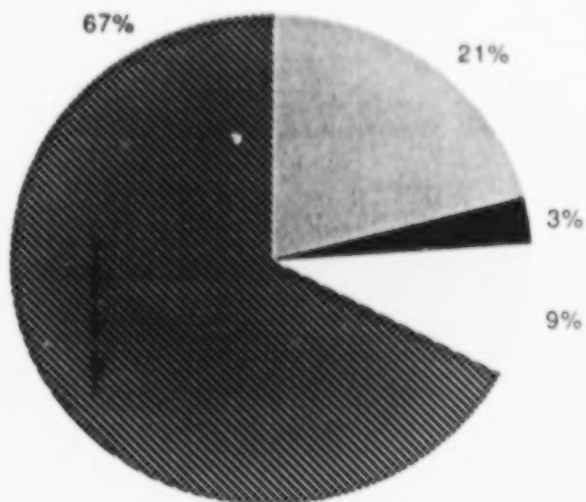
Grade 6



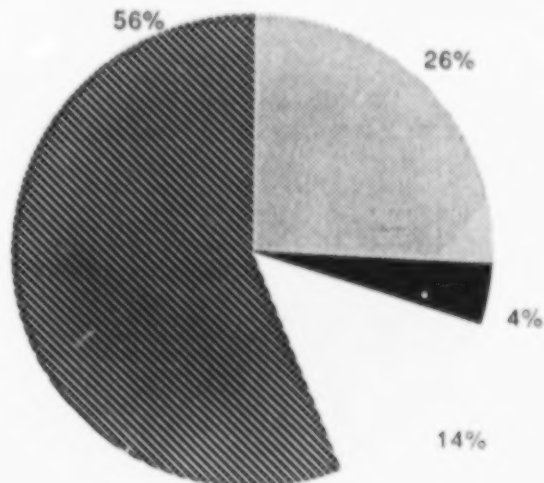
Grade 8



Grade 10



Grade 12



IX. PERCENTAGE OF STUDENTS AT RISK

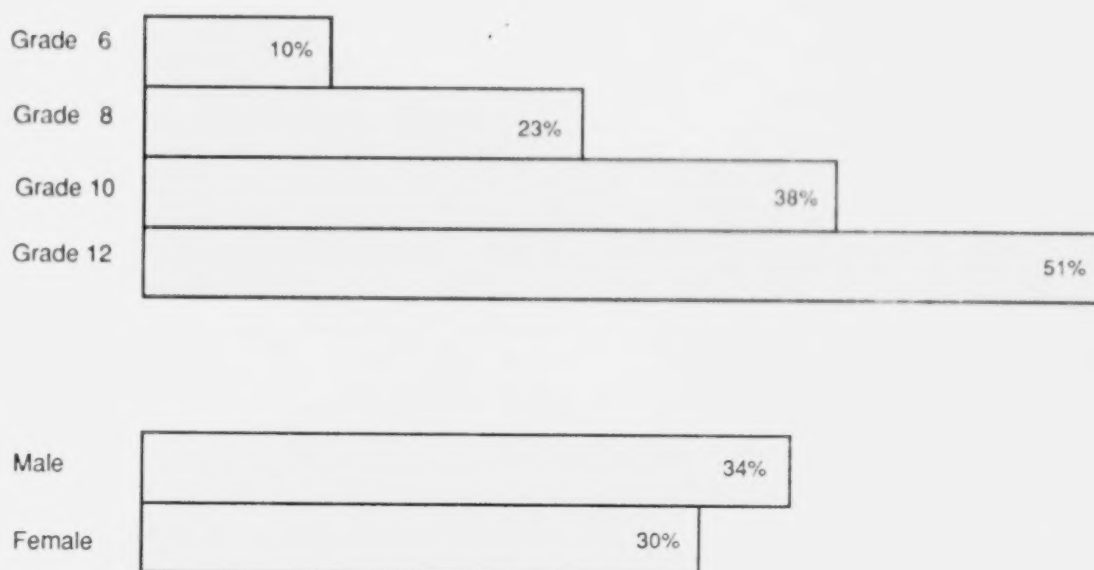
In this study, "at risk" is a term used to describe a student who has initiated one or more forms of chemical use at levels that could either signal an emerging or eventual dependency or risk physiological damage. The at-risk percentages are larger than the percent of problem users discussed in the previous section because of the addition of regular use of cigarettes, smokeless tobacco, or inhalants. A student was classified as at risk if one or more of these criteria is met:

- Use of alcohol 40 or more times in the last 12 months
- Use of alcohol 6 or more times in the last 30 days
- Five drinks or more in a row, once or more, last 2 weeks
- Daily cigarette use during the last 30 days
- Regular use of smokeless tobacco
- Use of an illicit drug 6 or more times in the last 12 months
(marijuana, cocaine, amphetamines, heroin, other narcotics, LSD, PCP, barbiturates, methaqualone, tranquilizers)
- Use of an illicit drug 3 or more times in the last 30 days
- "Sniffed glue or breathed the contents of aerosol spray cans in order to get high," 20 or more times in the last 12 months.

The percentages of students classified as at risk are displayed in Figure 24. At-risk rates are as follows:

Grade 6	10%
Grade 8	23%
Grade 10	38%
Grade 12	51%
Male	34%
Female	30%

Figure 24: At-Risk Index*



*Refers to the percentage of students who have one or more of these characteristics: used alcohol 40 + times in last year, used alcohol 6 or more times in last month, drank 5 or more drinks in a row once or more during the last 2 weeks, smoked 1 or more cigarettes a day in the last month, used smokeless tobacco regularly, used an illicit drug 6 or more times in the last year, sniffed glue 20 or more times in the last year, or used an illicit drug 3 or more times in the last month.

X. COMPARISONS TO NATIONAL NORMS

The most representative national estimates of adolescent alcohol and drug use come from the annual Monitoring the Future Project, conducted by the University of Michigan under contract to the National Institute on Drug Abuse. Each spring a representative sample of more than 16,000 high school seniors is surveyed. To date, there are no comparable national norms for grades other than the 12th.

The comparison of Wisconsin data to national data is complicated by the fact that the Wisconsin survey was conducted in October/November of the 12th grade year, while the national data are collected in the spring of the 12th grade year. It is expected that the Wisconsin rates, particularly for lifetime use, would be slightly higher if the data had been collected six months later.

Figure 25 compares Wisconsin seniors to this national study (1988). Key findings are as follows:

- The rates of alcohol use by Wisconsin seniors are similar to national norms. This holds for lifetime, annual, and 30-day rates. Both Wisconsin and national seniors have a 37 percent rate for drinking "5 or more drinks in a row during the last 2 weeks."
- Wisconsin seniors (12%) are as likely as national seniors (11%) to smoke one-half pack or more of cigarettes per day.
- Wisconsin seniors are less likely than their national peers to use marijuana, cocaine, or amphetamines.
- Wisconsin seniors are less likely (47%) than national seniors (58%)

to report use, once or more, lifetime, of an illicit drug (i.e., marijuana, cocaine, amphetamines, LSD, PCP, heroin, other narcotics, tranquilizers, methaqualone, barbiturates).

In summary, Wisconsin seniors, in comparison to a national representative sample, are as likely to use alcohol and smoke cigarettes, and less likely to use illicit drugs.

Figure 25: Comparisons to National Norms for High School Seniors

	National 12th graders (1988) (%)	Wisconsin 12th graders (1988) (%)
Used alcohol, once or more, lifetime	92	94
once or more, last 12 months	85	86
once or more, last 30 days	64	62
Drank 5 or more drinks in a row, during last 2 weeks, once or more	37*	37
Smoked 1/2 pack of cigarettes or more per day, last 30 days	11*	12
Used marijuana, once or more, lifetime	47	42
once or more, last 12 months	33	31
once or more, last 30 days	18	16
Used cocaine, once or more, lifetime	12	9
once or more, last 12 months	8	6
once or more, last 30 days	3	3
Used amphetamines, once or more, lifetime	20	16
once or more, last 12 months	11	10
once or more, last 30 days	5	4
Used tranquilizers, once or more, lifetime	9	8
once or more, last 12 months	5	4
once or more, last 30 days	2	1
Used illicit drug, once or more, lifetime	54	47

*1987 percentages

XI. COMMUNITY SIZE DIFFERENCES

Students were placed into four community size categories: under 2500, 2500-9999, 10,000-49,999, and 50,000 or more. Sample sizes are listed below:

<u>Community Size</u>	<u>Sample Size</u>	<u>Percent Total Sample</u>
Under 2500	2,131	34
2500-9999	637	10
10,000-49,999	970	16
50,000 or more	2,460	40

A summary of selected findings is displayed in Figure 26.

- Exposure to drug education at school appears to be lowest in the smallest (under 2500) and largest (50,000+) communities.
- Alcohol use tends to be slightly higher in smaller communities (under 2500 and 2500-9999) than larger ones (10,000-49,999 and 50,000+).
- Drug use does not vary considerably by town size. There is a modest trend for students in the largest size category (50,000+) to have higher rates for marijuana use and lifetime use of an illicit drug, compared to students in smaller communities.
- Regular use of cigarettes or smokeless tobacco does not vary by community size.

In summary, it appears that drug and alcohol behavior varies little as a function of community size.

Figure 26: Community Size Differences*

	Community Size			
	Under 2500	2500-9999	10,000-49,999	50,000 or more
	(%)	(%)	(%)	(%)
<u>Drug Education</u>				
Never had a course teaching about alcohol or drugs	17	12	14	19
<u>Alcohol Use</u>				
Once or more, lifetime	83	84	80	75
40 or more times, lifetime	21	22	17	16
Once or more, last 12 months	67	70	63	60
20 or more times, last 12 months	14	15	12	10
Once or more, last 30 days	44	42	38	37
<u>Five Drinks in a Row (Drunk Rate)</u>				
Once or more, last 2 weeks	25	24	20	22
<u>Drug Use, once or more, lifetime</u>				
Marijuana	18	19	22	26
Cocaine	3	3	5	6
Crack	1	1	2	2
Amphetamines	9	10	10	9
<u>Drug Use, once or more, last 12 months</u>				
Marijuana	13	15	17	19
Cocaine	2	2	4	4
Crack	1	0	1	1
Amphetamines	5	6	7	6
<u>Illicit Drug Index</u>				
Used an illicit drug, once or more, lifetime	23	25	27	31
Used an illicit drug, once or more, last 12 months	16	19	20	22
<u>Tobacco Use</u>				
Smoke 1/2 pack or more per day	6	6	7	8
Use smokeless tobacco regularly	2	2	2	1

*For total sample, combining 6th, 8th, 10th, and 12th grades

XII. SCHOOL AND COMMUNITY RESOURCES

Students were asked if they knew whether each of 10 resources was available in their community. Figure 27 displays the findings. The most common resources, according to students, are groups like AA and Alanon, school counselors trained to do individual counseling, and school-based drug education.

Sixth and eighth graders are the least likely to claim knowledge of these resources. This may be due to the fact that some of the listed resources are only available at or through the local high school. If so, consideration should be given to making resources available to middle school and junior high youth since reliable data indicate that chemical use in Wisconsin, as well as nationally, may begin before age 12.

One resource that likely exists but that only a minority of students in each grade recognize is "school staff available to meet with students to discuss questions or concerns about alcohol and other drugs."

Several other findings based on Figure 27 deserve mention.

- Fewer than 50 percent of students know that a telephone "hotline" is available. Of the four grades, percentages for 6th (35%) and 12th (40%) are lowest.
- It may be that the religious community could play a more active role in primary or secondary prevention. Most students are not aware of "programs for youth with alcohol or drug problems sponsored by religious groups."
- Each of the three kinds of support groups listed in Figure 27 are not viewed as widely available. They, of course, may be present in

Figure 27: Student Knowledge of Community and School Resources

	Percentage of students who know such help is available					
	Grade (%)				Gender (%)	
	<u>6</u>	<u>8</u>	<u>10</u>	<u>12</u>	<u>M</u>	<u>F</u>
Telephone "hotline"	35	48	45	40	42	42
Groups such as Alcoholics Anonymous, Alanon, Alateen	41	59	73	73	60	64
Programs for youth with alcohol or other drug problems sponsored by religious groups	33	37	39	44	39	37
School counselors or other staff trained to provide individual counseling	66	73	80	81	71	79
Instruction about alcohol and other drugs in classes such as health	54	66	80	83	69	74
School staff available to meet with students and discuss questions/concerns about alcohol and other drugs	44	43	45	49	45	46
Support group at school for students with alcohol or other drug problems	30	37	42	51	38	43
Support group at school for students recovering from alcohol or other drug use problems	26	26	29	34	28	30
Support group at school for students worried about the alcohol/drug use of people they care about	35	35	39	44	36	41
Student group such as Students Against Driving Drunk (SADD)	34	38	61	61	47	51

Based on survey item 109

some communities without the full awareness of all students. The one support group that could be of wide interest is a group "at school for students worried about the alcohol/drug use of people they care about." It is reasonable to estimate that most students have a family member, neighbor, or peer who needs help, and a good strategy for providing help is to assist students in learning how to intervene responsibly. One forum for such skill-building is a support group. However, only 35 percent of 6th and 8th graders, 39 percent of 10th graders, and 44 percent of 12th graders are aware of this kind of help.

Student Use of Resources

Students were also asked to indicate which, if any, of the 10 resources "have you used to help with an alcohol or other drug-related problem?" Figure 28 shows the percentages of students indicating use of each resource. The resource cited most often is "instruction about alcohol and other drugs in classes such as health." Among the least commonly used is the telephone "hotline," with only 2 percent of students indicating use.

It is also instructive to note the percent who say, in response to each of the 10 resources, that "I have needed this but haven't asked for help." Combining all 6,222 students together, each of the 10 resources receives this response from 7 or 8 percent of students. And there is a trend for 6th and 8th graders to so indicate, in comparison to older students.

Figure 28: Student Use of Resources

	Grade (%)				Gender (%)	
	6	8	10	12	M	F
Telephone "hotline"						
Have used	6	5	3	2	5	3
Have needed but haven't used	9	9	7	7	9	7
Groups such as Alcoholics Anonymous, Alanon, Alateen						
Have used	6	6	5	6	6	5
Have needed but haven't used	8	9	7	6	9	6
Programs for youth with alcohol or other drug problems sponsored by religious groups						
Have used	7	5	3	3	5	3
Have needed but haven't used	8	9	7	6	9	6
School counselors or other staff trained to provide individual counseling						
Have used	10	8	6	6	7	8
Have needed but haven't used	9	9	7	6	9	6
Instruction about alcohol and other drugs in classes such as health						
Have used	13	13	17	18	14	17
Have needed but haven't used	8	9	7	6	9	6
School staff available to meet with students and discuss questions/concern about alcohol and other drugs						
Have used	9	6	4	4	6	5
Have needed but haven't used	8	9	7	6	9	6
Support group at school for students with alcohol or other drug problems						
Have used	7	5	3	3	5	4
Have needed but haven't used	9	9	7	6	9	6
Support group at school for students recovering from alcohol or other drug use problems						
Have used	7	5	3	3	5	3
Have needed but haven't used	8	9	7	6	9	6
Support group at school for students worried about the alcohol/drug use of people they care about						
Have used	9	6	5	5	5	7
Have needed but haven't used	9	9	8	7	9	6
Student group such as Students Against Driving Drunk (SADD)						
Have used	7	5	6	7	6	7
Have needed but haven't used	8	9	7	6	9	6

Based on survey item 110

XIII. OPPORTUNITIES

To the authors of this report, six findings stand out:

- **The frequent use of alcohol by Wisconsin students.** Although the rates for seniors are similar to national averages, the frequency and intensity of drinking is cause for concern. Thirty-seven percent of seniors drink to the point of intoxication, for example. Forty percent of seniors are classified as problem drinkers, based on the combination of the problem drinker and both problem drinker and problem drug user categories discussed in chapter VIII.
- **Fifty-three percent of 6th graders have already used alcohol.**
Current Wisconsin sixth graders are nearly three times more likely than current 12th graders to report that their first use of alcohol occurred in grade 5 or earlier.
- **Eighteen percent of 12th graders and 12 percent of 10th graders are problem drug users, most of whom are also problem drinkers.**
Problem drug users are defined as students who have used an illicit drug 6 or more times in the last year, or 3 or more times in the last month.
- **In Wisconsin, alcohol and drug use varies very little by community size.** Chemicals are as likely to touch the lives of students in small towns as in urban centers.
- **Almost half (46%) of high school seniors drove a vehicle after drinking during "the last 12 months."**

- Significant percentages of youth in each grade (6th, 8th, 10th, and 12th) are chemically at-risk (see chapter IX for definitions). In the 6th grade, 10 percent are at risk; in 8th, almost one out of four (23%); in 10th, 38 percent; and in 12th, more than half (51%).

Wisconsin students report little interest in curtailing current use levels. When asked to predict alcohol and drug use "five years from now," 76 percent of seniors expect to be using alcohol, 17 percent expect to smoke cigarettes, and 8 percent expect to be using marijuana (Figure 29).

Most communities in the United States face the problem of a growing adolescent at-risk population. It is unlikely that any one program or intervention will turn the tide. What is required is a community-wide effort involving families, schools, churches, voluntary organizations, government, and local business. The effort must be well coordinated, and it must be given top priority.

The survey provides some leads on what might be done to help Wisconsin youth prosper.

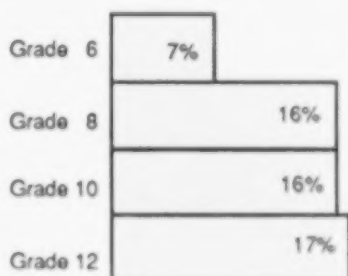
Perception of Health Risks

Although adolescents are notorious for ignoring health promotion information, there is some evidence in the drug education literature that knowledge of health risks deters chemical use, particularly with tobacco. Figure 30 shows the percentages who view chemical use as presenting a "great risk." Only two of the ten items receive high acknowledgement of risk: regular use of cocaine, and chemical use during pregnancy. The majority of students, except in the 12th grade, do not view smoking a pack of cigarettes daily as presenting great risk. And a surprising number do

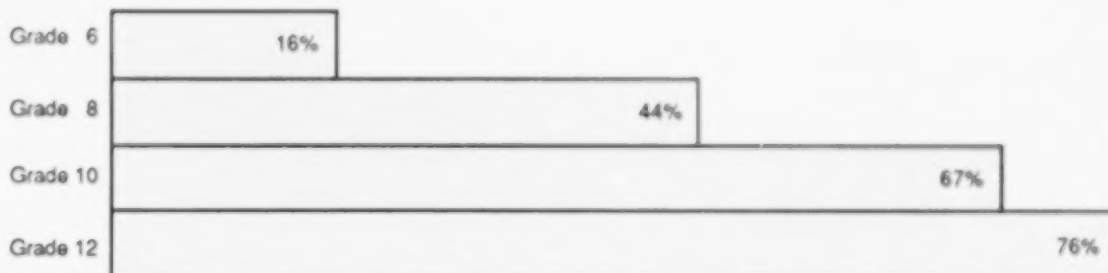
Figure 29: Projections of Use in Five Years

Probably or definitely will use

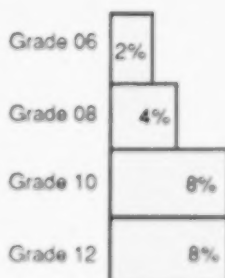
Cigarettes



Alcohol



Marijuana or Hashish



Based on survey items 102-104

Figure 30: Perception of Health Risk

	Percentage <u>great risk</u>					
	Grade (%)				Gender(%)	
	<u>6</u>	<u>8</u>	<u>10</u>	<u>12</u>	<u>M</u>	<u>F</u>
Smoke 1 or more packs of cigarettes a day	36	41	49	57	43	50
Try marijuana once or twice	30	28	18	14	22	23
Smoke marijuana regularly	69	78	76	74	69	80
Try cocaine once or twice	29	34	36	35	37	30
Use cocaine regularly	73	87	93	95	85	90
Smoke 2 or 3 cigarettes every day	12	12	11	13	11	13
Take 4 or 5 drinks of alcohol nearly every day	39	48	59	70	47	61
Smoke, drink, or use drugs during pregnancy	70	84	91	94	81	89
Drive after drinking 2 or more drinks of alcohol	47	54	64	61	50	63
Ride with a driver who has had 2 or more drinks of alcohol	54	62	68	66	56	69

Based on survey items 83-92

not view driving after drinking as a great risk. It seems apparent that the data in Figure 30 represent educational possibilities.

Resource Availability

More resources may be available for help than students realize. Most do not think, for example, that school staff are "available to meet with students and discuss questions and concerns about alcohol and other drugs." For school officials to make their interest and availability more visible would lead to greater utilization of this resource. Sixth and eighth graders are not highly aware of school or community resources, and efforts to educate about them and/or to expand resources for this age group are recommended.

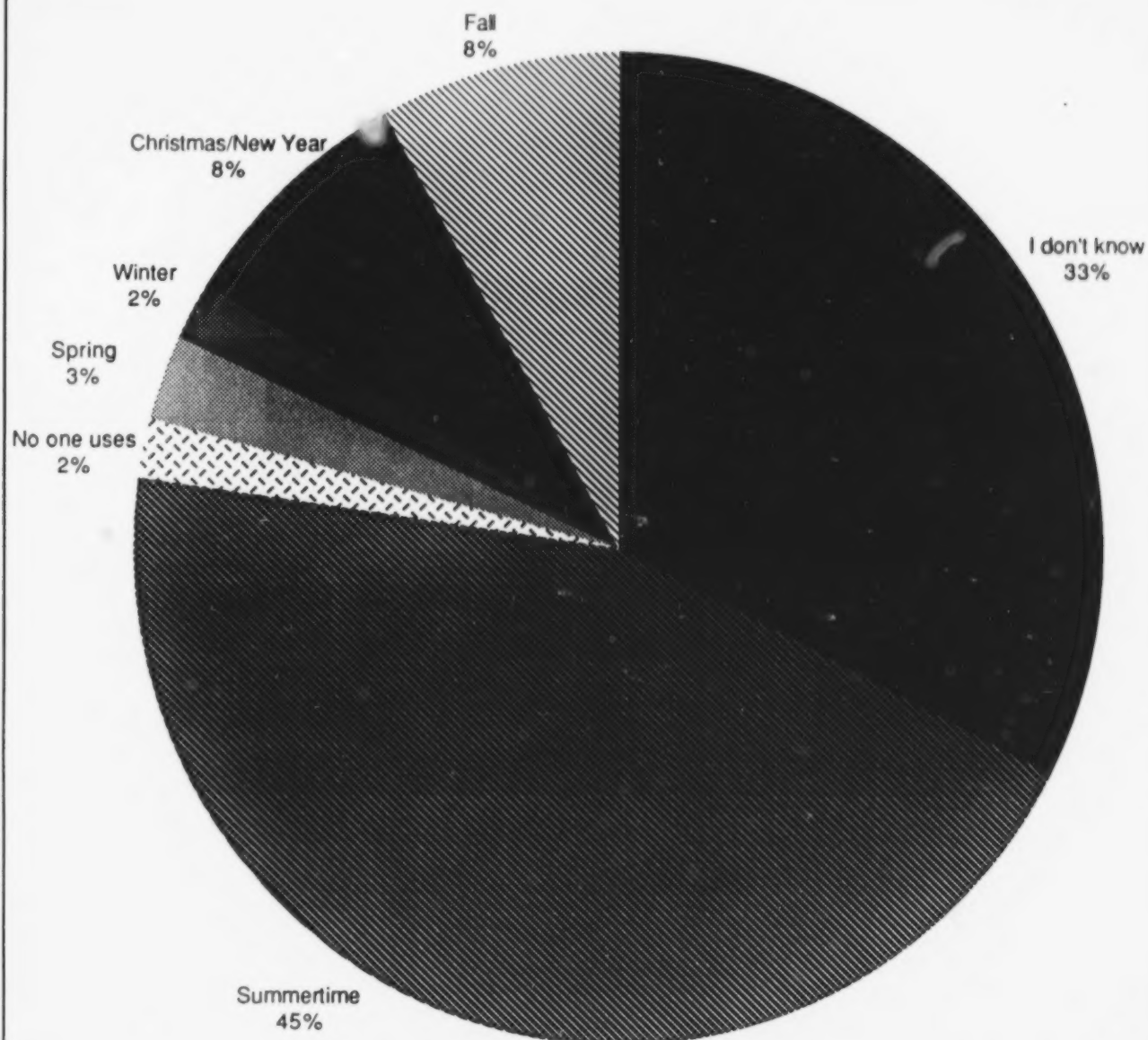
Seasonality

On item #101, students were asked, "During what time of the year would you say that students in your school are most likely to use alcohol or drugs?" The most common response was "during the summertime." (See Figure 31.) This is, of course, the time when schools and most youth-serving programs are "on vacation." Community prevention strategies might be developed for this time period.

Preferred Sources of Help

When asked to indicate "to whom would you most likely turn for help or advice if you were having a problem with drugs or alcohol," students overwhelmingly indicated "parent (guardian)" or "a friend my age" (Figure 32). Note that "parent" is the dominant choice at 6th grade, "friend" is

Figure 31: Time of Year Alcohol and Other Drugs Are Most Used



Based on survey item 101

Figure 32: Sources of Help

	<u>Grade (%)</u>				<u>Gender (%)</u>	
	<u>6</u>	<u>8</u>	<u>10</u>	<u>12</u>	<u>M</u>	<u>F</u>
If you were having a problem with alcohol or drugs, to whom would you most likely turn for help or advice (choose only ONE answer)?						
Parent/guardian	48	33	23	20	36	26
Friend my age	17	33	38	48	28	41
Relative (aunt, uncle, brother, sister)	6	8	9	7	7	8
Priest, minister, rabbi	2	2	1	1	2	1
Teacher or school counselor	11	9	7	4	8	7
Doctor or other medical person	4	2	3	2	3	2
Counselor at office away from school	4	3	3	3	3	3
Parent of friend	1	1	1	1	1	1
Adult neighbor	0	0	0	0	0	0
Youth group leader or coach	1	2	2	1	1	2
Other adult friend (not a relative)	2	3	6	6	4	5
Nobody	5	5	6	6	8	3

Based on survey item 105

the primary choice at 12th grade, males lean to parents and females to friends. The role of parents and friends as prevention resources cannot be underestimated. To empower them with helping and communication skills could have a powerful influence.

Factors Associated with Use or Non-Use

Using correlational procedures, we looked for hints in the survey of personal and social variables that are related, positively or negatively, to student alcohol and drug use. These variables were correlated with an at-risk measure. On the at-risk measure, students received a "1" if they met one or more of these conditions: used alcohol 40 or more times in the last year, used alcohol 6 or more times in the last month, drank to the point of intoxication once or more in the last 2 weeks, smoked cigarettes on a daily basis, used smokeless tobacco regularly, used an illicit drug 6 or more times in the last year, used an illicit drug 3 or more times in the last 30 days, or used inhalants (glue, aerosol cans) 20 or more times in the last year. If a student met none of these criteria, he/she received "0".

Figure 33 shows the relationship of a number of factors to this at-risk variable, listed separately for younger students (6th and 8th grades) and older students (10th and 12th grades).

Two factors are correlated positively with the at-risk index (that is, the higher the score on the variable, the more likely it is that one is at risk). These factors are the degree to which one's friends use alcohol, and the degree to which one's friends use marijuana.

A number of variables are related negatively to the at-risk index (as these variables rise, the less likely a student is to be at-risk). These

Figure 33: Factors Associated with Chemical At-Risk Index

Factor	<u>Correlation with at-risk index</u>	
	Grades 6-8	Grades 10-12
How often friends use alcohol	.52	.46
How often friends use marijuana	.56	.45
Degree to which parents would be upset if I used alcohol	-.23	-.27
How well I do in school	-.18	-.25
How much I like school	-.27	-.23
My educational aspirations	-.19	-.22
Amount of homework I do	-.07	-.19
Degree to which parents would be upset if I used drugs	-.20	-.18
Involvement in structured youth activities	NS	-.13
How comfortable I am in talking about alcohol/drugs with my parents	-.15	-.10
Amount of exposure to drug education	NS	-.09
All correlations are statistically significant, $p < .0005$. NS = non-significant		

variables include school factors (educational aspirations, homework, school performance, and liking for school) and family/parenting factors (degree to which parents would be upset about alcohol or drug use, and comfort in communicating with parents).

Involvement in structured youth activities (e.g., music, sports, clubs) is related to lower use by high school students, but not for 6th-8th graders.

The survey data do not distinguish among various types of drug education, but there is evidence that some drug education programs are seriously outmoded. An emerging literature suggests that information-based programming is not as powerful as newer, social skills models which enhance decision-making skills, assertiveness, resistance skills, and self-esteem.

While correlations are an index of relationship and cannot be used in and of themselves to determine causation, other research suggests that the variables listed in Figure 33 can make a difference in prevention.

Ultimately, the point of these correlations, as augmented by other findings in the national research literature, is that prevention must be a community effort involving the energy and priority of schools, families, churches, and youth organizations working together. The problems are too immense for one social institution to address alone.

Technical Appendix

CONFIDENCE INTERVALS

In a survey of this type both sampling and non-sampling errors can influence the data. Stratifying a sample to make it more representative of population characteristics reduces sampling error, as does making comparisons by groups that are common to all schools--gender and grade, for example. Using schools as units for sampling, however, increases the sampling error in comparison to doing a house-to-house survey of all people of the same age.

Non-sampling errors can also have an impact on the accuracy of the sample. They include ambiguous or misunderstood question-wordings; differences between those who refuse to participate and those who do, making the survey unrepresentative; tendencies of certain people to be more likely to agree or to give extreme ratings when asked questions, and a host of other difficulties. These difficulties affect all surveys, national and local, regardless of how good the sample is, and cannot be meaningfully controlled.

Taking these issues into account, sampling errors for a simple (non-stratified) random sample of this size in this population were computed. In light of the fact that the sample size is large and well-stratified, and that we are presenting percentages, this seemed a prudent approach.

The following table presents the resulting sampling errors and can be used as follows. Suppose a reported percentage for 8th graders is 33 percent. "For Percentages in an Individual Grade" shows that for percentages near either 30 or 70, the sampling error is 2.3 percent. This means that if 100 surveys using the same questions and the same number of

participants were administered, 95 percent of them would report a mean for this item for 8th graders between 30.7 percent and 35.3 percent.

Table of Sampling Error

For Percentages Based on the Total Sample

For percentages near 10% or 90%	+ 0.7%
For percentages near 20% or 80%	+ 1.0%
For percentages near 30% or 70%	+ 1.1%
For percentages near 40% or 60%	+ 1.2%
For percentages near 50%	+ 1.2%

For Percentages in an Individual Grade

For percentages near 10% or 90%	+ 1.5%
For percentages near 20% or 80%	+ 2.0%
For percentages near 30% or 70%	+ 2.3%
For percentages near 40% or 60%	+ 2.5%
For percentages near 50%	+ 2.5%

For Percentages by Gender

For percentages near 10% or 90%	+ 1.0%
For percentages near 20% or 80%	+ 1.4%
For percentages near 30% or 70%	+ 1.6%
For percentages near 40% or 60%	+ 1.7%
For percentages near 50%	+ 1.7%